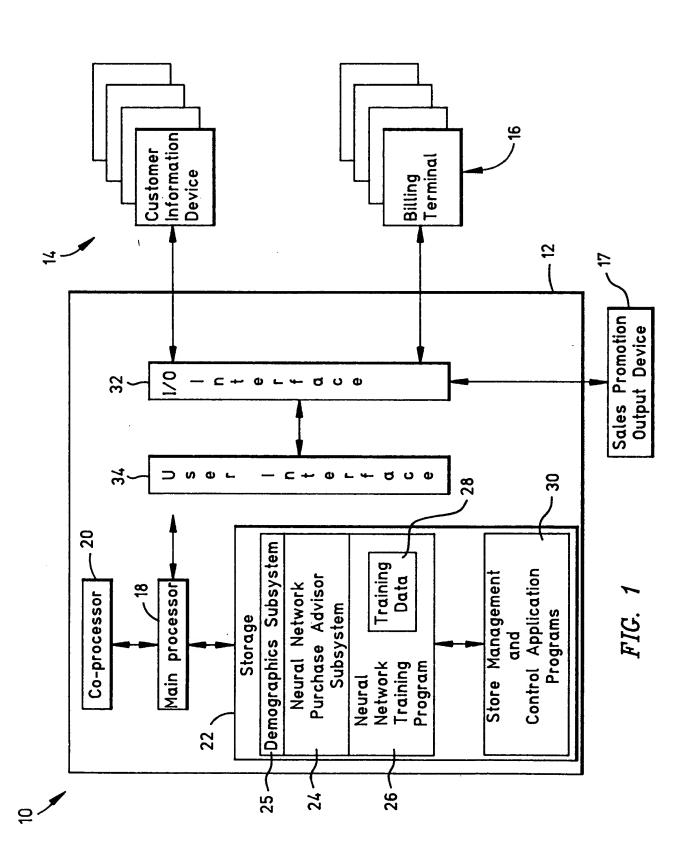


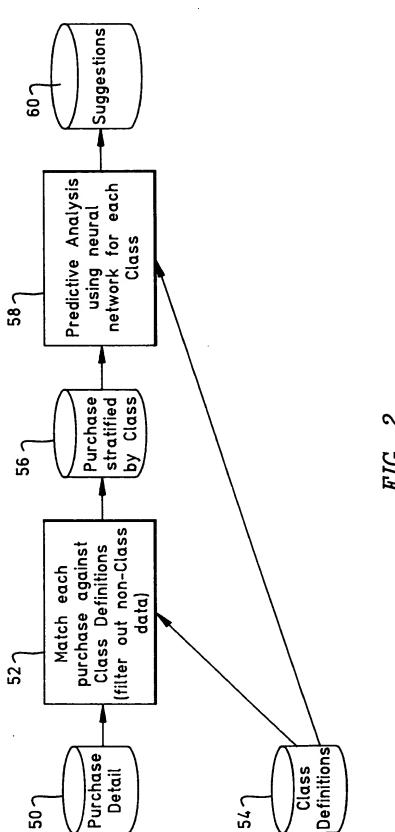
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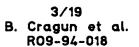






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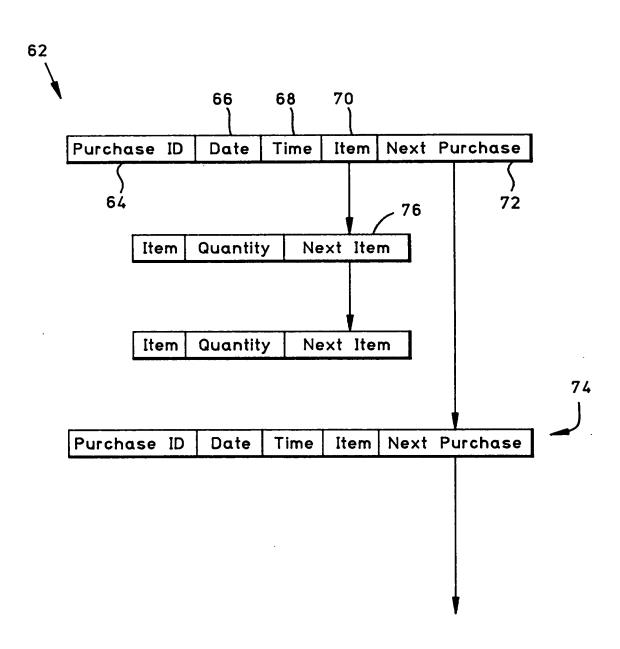


FIG. 3

4)

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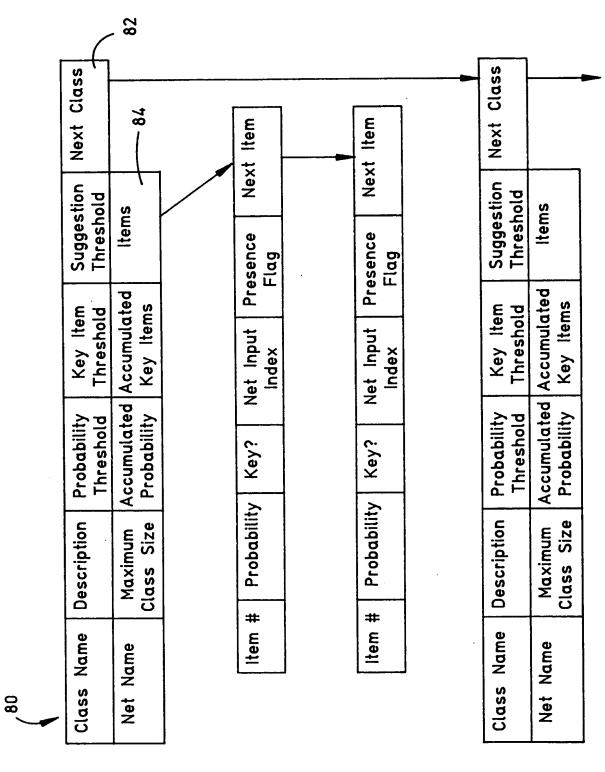


FIG. 4

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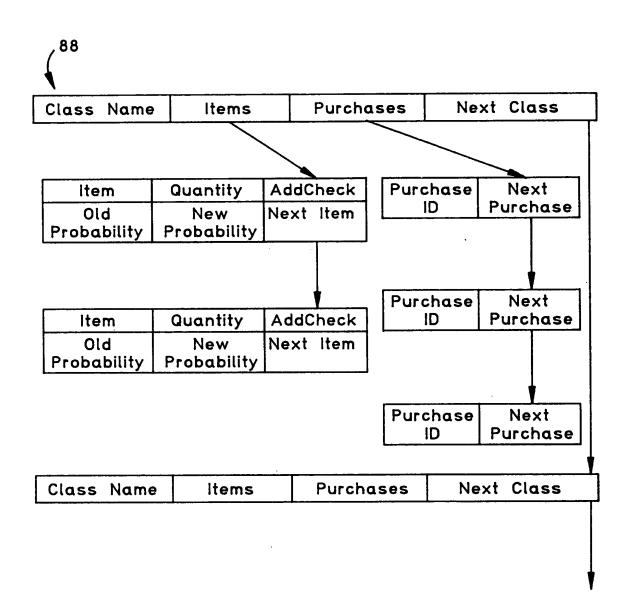


FIG. 5

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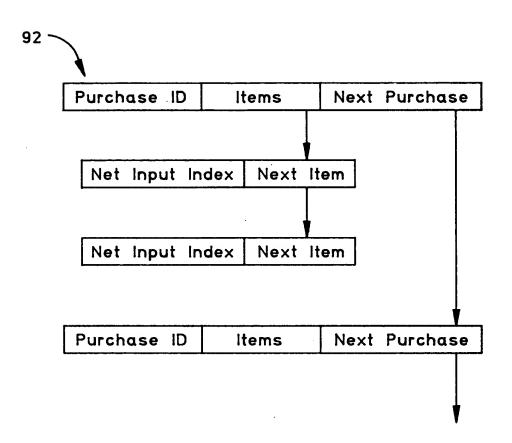


FIG. 6

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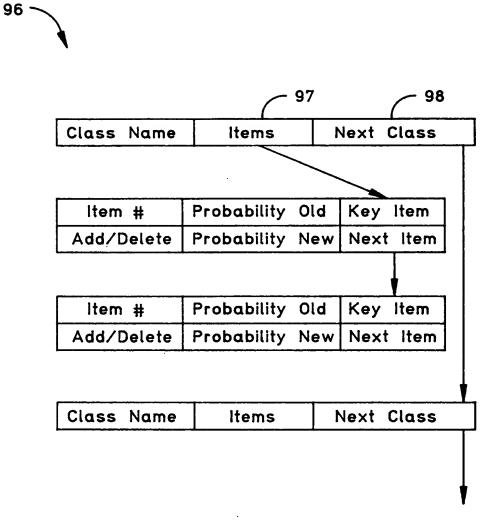
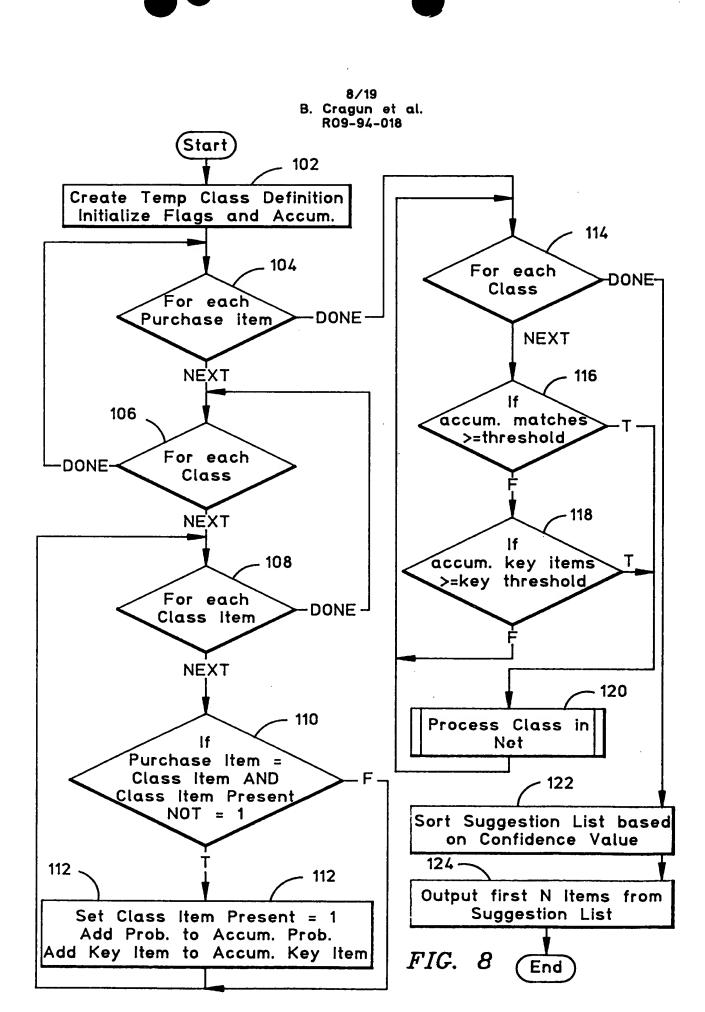
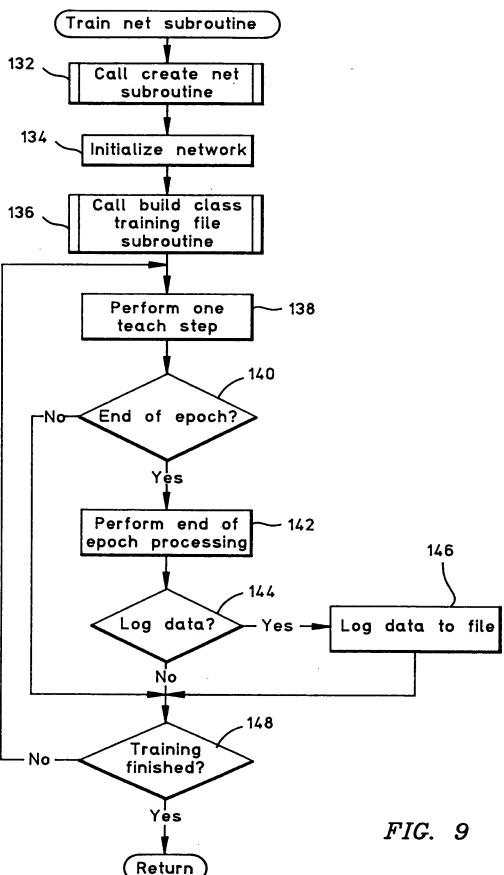
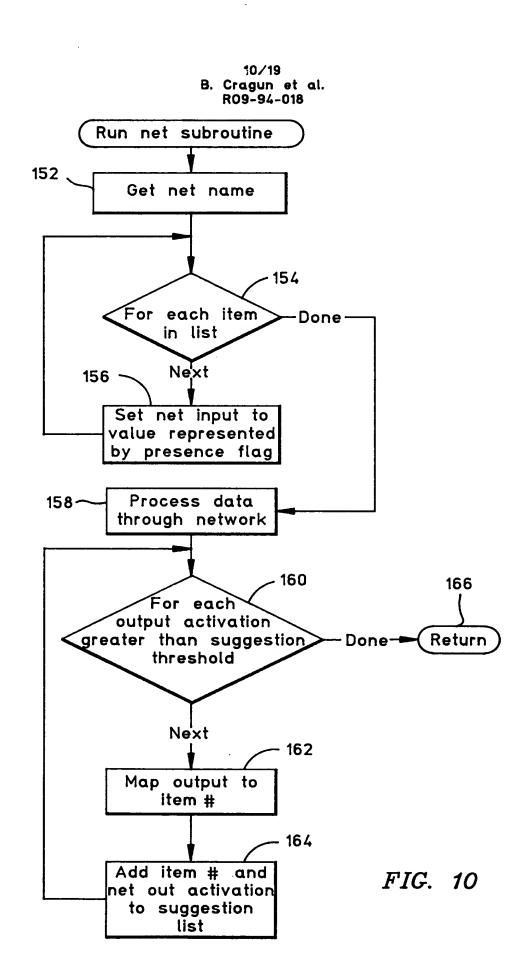


FIG. 7



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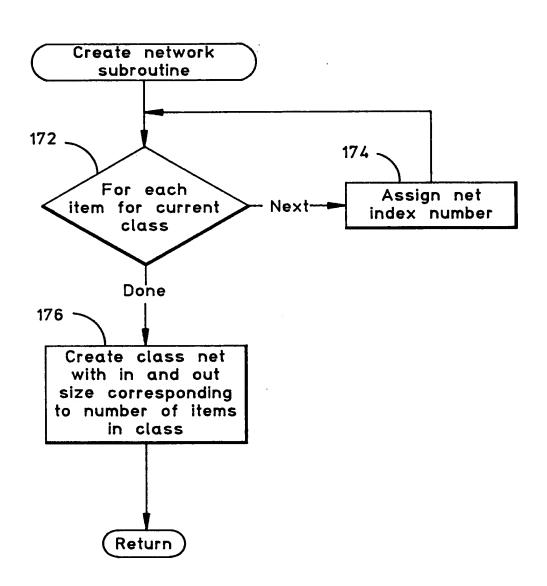


FIG. 11

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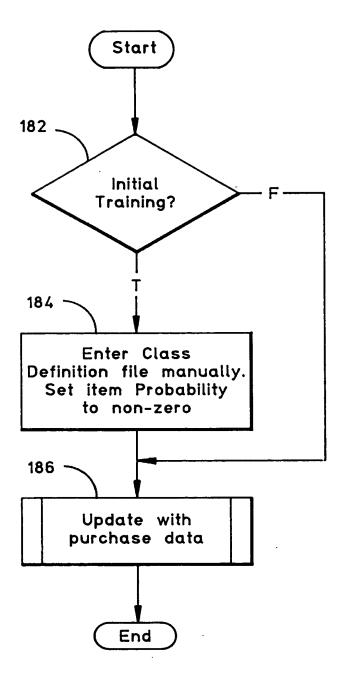


FIG. 12

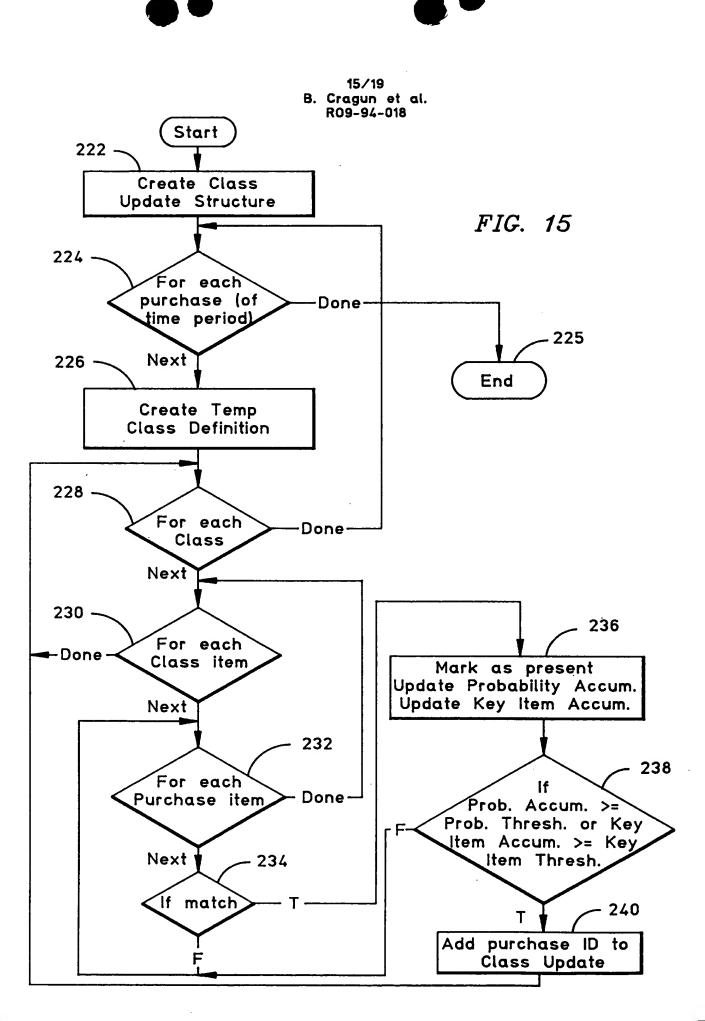
13/19 B. Cragun et al. R09-94-018 Build class training file subroutine 192 For each purchase id in Return Done · class update file for class to update 201 Next 194 -Add purchase id to class train file 196 -For each item in purchase Done detail file for purchase id Next 198 ~ If exists, get net input index from class def file for class name > items > item # equal to current item # from purchase detail file 200 \_

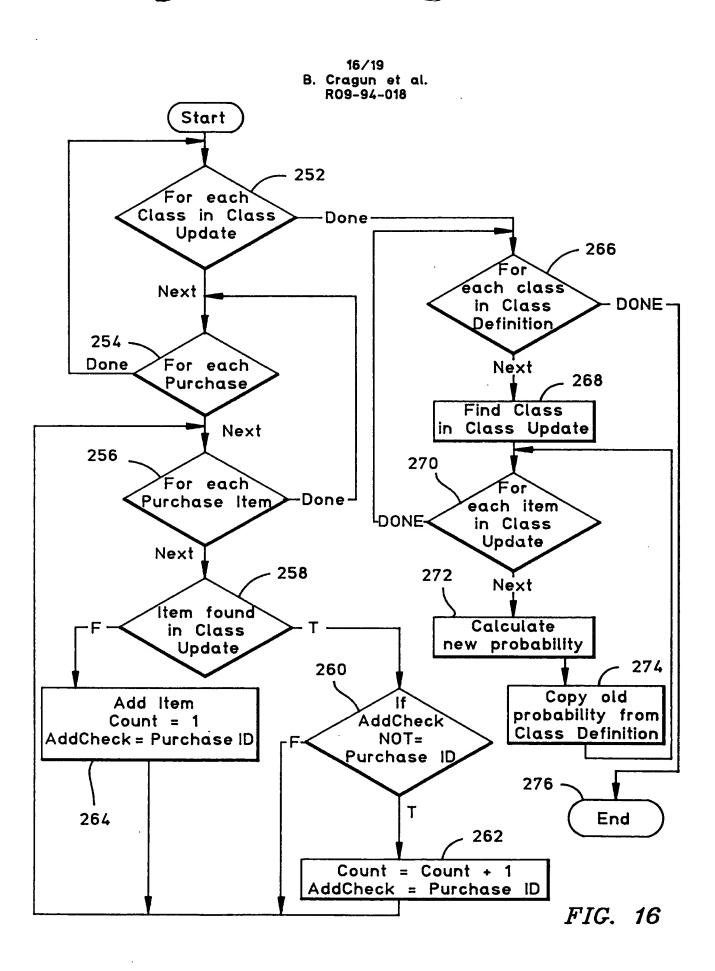
Add net input index to class training file for the current

purchase id

FIG. 13

14/19 B. Cragun et al. R09-94-018 Start 202 ~ Re-create significant purchases 204 -Add in other non-class items 206 -Analyze for change 208 -For each class -Done **NEXT** 210 If in Class Change History file 212 -Train net FIG. 14 Return





17/19 B. Cragun et al. R09-94-018 Start 282 For each Done End Class 284 Next Sort Class Update Structure by New Probability Save Class Definition file Create temp Class Definition file 286 288 For all Replace items in Class DONE-Class Def. file Update with temp Structure Next 290 296 290 lf If New Prob.> NOT Class New Prob.> Class Def. Key Item Max Size Prob Prob 300 F Set F Key Flag 292 302 Old Prob. NOT=0 insert temp 294 Class Def. file Insert Class Change file (delete) FIG. 17

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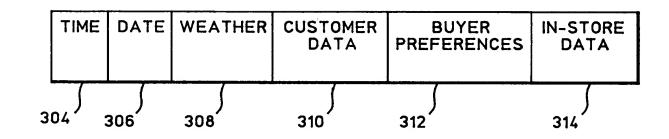
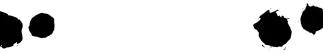


FIG. 18



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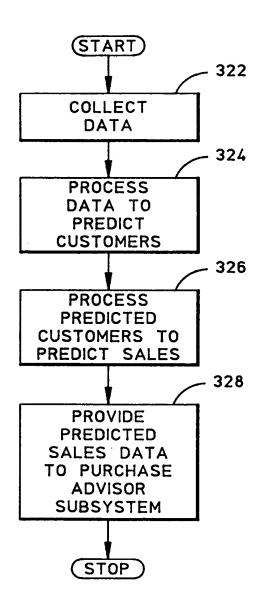


FIG. 19